

- De organis quæ respiratione et nutritione foetus mammalium inserviunt. *Prolusia academica* quam scripsit D. F. Eschricht, M. D. Hafniæ, 1837. From the same.
- Om undersøgelsen af de Nordiske Hvaler af D. F. Eschricht, M. D. Kjöbenhavn. From the same.
- Undersøgelsen over Hvaldyrene af D. F. Eschricht:  
 Første afhandling—Bemærkninger over Cetologiens tidligere og Nærværende skjebne.
- Anden afhandling—Anatomisk Beskrivelse af de ydre fosterformer hos to Nordiske Fihval-arter, med Anvendelse paa Physiologien og Zoologien.
- Tredie afhandling—Om fosterformene Bardihvalernes ernærings-og Forplantelsesredskaber.
- Fjerde afhandling—Om Næbhvalen. From the same.
- Anatomische unter suchungen über de Clione Borealis. H<sup>m</sup>. Carl Holböll und D. F. Eschricht, M. D. Kopenhagen, 1838. From the same.
- The North American Sylva. By Michaux and Nuttall. Vol. I. Philadelphia, 1842. In exchange.

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A letter was read from Mr. Edward Wilson, dated Leydstip House, near Tenby, Pembrokeshire, England, 22d Sept., 1846, acknowledging the receipt of his notice of election as a Correspondent.

Dr. Morton read a portion of a paper intended for publication in the American Journal of Science, on Hybridity in animals considered in reference to the question of the Unity of the Human Species.

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*Stated Meeting, November 10, 1846.*

VICE PRESIDENT MORTON in the Chair.

DONATIONS TO MUSEUM.

Mr. Lewis Germain, of Burlington, N. J., presented an additional number of fossils from the marl strata near that place. Also the tooth of a *Sphyræna* from Mullica Hill, New Jersey.

Original specimen of Rafinesque's *Mazama salinaria*. Presented by Mr. Haldeman. [Mr. H. stated that this was in reality merely a single prong of the horn of a *Cervus*, the interior being mineralized.

Two fine specimens, in skin, of *Falco leucocephalus*. From Dr. Heermann.

Dr. Dickeson presented twenty-six species of fossil *Helix* from the Drift west of Natchez; and also deposited six human crania, four of which are from the mounds near that place.

#### DONATIONS TO LIBRARY.

Astronomical Observations made at the Naval Observatory, Washington, under orders of the Secretary of the Navy, dated Aug., 1838. By Lieutenant J. M. Gilliss, U. S. N. Washington, 1846. From Lieut. Gilliss.

Proceedings of the American Philosophical Society. Vol. 4, No. 35. Jan. to June, 1846. From the Society.

The American Journal of Science and Arts. New series. Vol. 2, No. 6. From the Editors.

Expedition shells, described for the work of the U. S. Exploring Expedition. By Aug. A. Gould, M. D. Boston. 1846. From the Author.

On the Volcanoes of the Moon. By James D. Dana. New Haven, 1846. From the Author.

Medical Examiner, Vol. 4, No. 6, containing an article by Dr. E. Hallowell, on the habits and post mortem appearances of a Chimpanzee (*Simia Troglodytes*) which died in Philadelphia. From Dr. Hallowell.

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Letters were read,

From Mr. C. B. Adams, dated Middlebury, Vermont, Nov. 5, 1846, acknowledging the receipt of his notice of election as a Correspondent.

And from Mr. C. P. Wickersham, dated Kennett Square, Chester Co., Pennsylvania, Oct. 26, 1846, addressed to the Corresponding Secretary, containing the following, in refer-

ence to his recent donation to the Academy, of a fine specimen of fossil tracks in the red sandstone of the Connecticut Valley.

“It may not be improper for me to add, that we were shown on a large block of stone, by a gentleman connected with the quarries, tracks resembling those of some of our land animals, perhaps those of a mink in size. They were very distinct, though rather lightly impressed, there being, I believe, two rows across the stone. And that early last spring I found among some fragments, thrown out in consequence of sinking a well deeper, in Rockyhill, Ct., a specimen of fossil shell, or something having a close resemblance to one. One side of it is very perfect, the other is embedded in the stone, and is probably a small bi-valve, nearly an inch in length, and near three quarters of an inch in breadth. I sent it to Professor Silliman, with permission to deposit it in the cabinet of Yale College. If a shell, it appears to be the first we have any account of as having been found in the sandstone of the Connecticut Valley.

The suggestion that the fossil tracks may probably be those of some Sauroid reptile, is doubtless worthy of attention. But from the few observations I made during my four years' residence at the University of that place, I am inclined to the opinion that they can never be attributed to any other than biped animals of some type or other. Where opportunity is afforded for the inspection of a large number of successive tracks, they are found to be at regular intervals, along a line in the direction of the motion of the centre of gravity of the animals; and the line drawn through the heel and centre toe makes but a small deflexion from the line of motion of the animal. In all the tracks which I have carefully noticed, each alternate track exactly resembles that which precedes it, and in some cases where there is a slight peculiarity in one of the feet, this fact is very apparent. The heel of the track does not exhibit any sign of the impression of a portion of the leg adjoining the foot, not even where the animal has passed up or down a small declivity, as was the case with some tracks on that portion of the specimen in your museum, destroyed by the workmen in our absence. If uric acid is found only in the excrements of birds,

the analysis of some of the coprolites found in the valley is pretty conclusive evidence that birds did exist there at the time the sandstone was forming.

Now if we take the Crocodile, Alligator, or any of the Saurian type with which we are acquainted, we should expect to see their tracks made at irregular intervals, and at some distance on either side of a plane passing perpendicularly through the centre of gravity of the animal in the direction of its motion, especially when we consider the width the feet are separated, and the clumsy manner in which these animals must move. These animals would, in all probability, leave the print of a portion of the leg next the foot, and which, if I mistake not, is the case with the fossil tracks acknowledged to be of the Sauroid character, found in the same valley."

Dr. Morton concluded the reading of his memoirs on "Hybridity in animals considered in reference to the question of the Unity of the Human Species," and after some general remarks, submitted the following conclusions :

1. A latent power of hybridity exists in many animals in the wild state, in which state, also, hybrids are sometimes produced.

2. Hybridity takes place not only among different species, but also among different genera; and the cross-breeds have been prolific in both cases.

3. Domestication does not cause this faculty, but merely evolves it.

4. The capacity for fertile hybridity, *cæteris paribus*, exists in animals in proportion to their aptitude for domesticity and cultivation.

5. Since various species of animals are capable of producing a fertile hybrid offspring, hybridity ceases to be a test of specific affiliation.

6. Consequently, the mere fact that the several races of mankind produce, with each other, a more or less fertile progeny, constitutes, in itself, no proof of the unity of the human species.